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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,473	07/11/2003	Xiaowei Deng	TI-33969	5307

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EXAMINER	
NGUYEN, VAN THU T	

ART UNIT	PAPER NUMBER
2824	

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/618,473	DENG ET AL.	
	Examiner	Art Unit	
	VanThu Nguyen	2824	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) *19-22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *07/11/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *Search Report*.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-18 in the reply filed on August 17, 2004 is acknowledged.

2. Claims 19-22 are withdrawn from consideration.

Specification

3. The Specification is objected to because it does not clearly describe how a resistor can be used as the intervention circuit (as claimed in claims 3 and 13).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 7-8, 9-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 7 and 9 recite the limitation "the control circuit" on line 2 of each. There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-18 rejected under 35 U.S.C. 102(b) as being anticipated by **Itoh** et al. (U.S. Patent No. 4,247,921) or **Eto** (U.S. Patent No. 5,982,701).

Regarding claim 1, **Eto** discloses, in FIG. 5, a method of reducing power consumption in a semiconductor memory device having a row of memory cells and circuitry for operating the row of memory cells, the method comprising the steps of:

providing an intervention circuit (43);

instantiating the intervention circuit within the circuitry for operating the row of memory cells, proximal to the row of memory cells;

operating the intervention circuit to retain the row of memory cells in a desired state (via SWDX); and

powering down the circuitry for operating the row of memory cells preceding the intervention circuit (via SWDZ).

(See column 5, lines 6-44).

Regarding claims 2, 4, 6, 7, 10, see FIG. 5.

Regarding claims 11-12, 14, 16, 18, they are rejected under U.S.C. 102(b) since they recite the same limitations as in claims 1-2, 4, 6-7, 10.

Regarding claims 3, 13, it would have been obvious to one with ordinary skill in the art to realize that transistors can be considered as resistors as well.

Regarding claim 1, **Itoh** discloses, in FIG. 7b, a method of reducing power consumption in a semiconductor memory device having a row of memory cells and circuitry for operating the row of memory cells, the method comprising the steps of:

providing an intervention circuit (P-MOS connecting to CE in circuit 73);

instantiating the intervention circuit within the circuitry for operating the row of memory cells, proximal to the row of memory cells;

operating the intervention circuit to retain the row of memory cells in a desired state (via CE); and

powering down the circuitry for operating the row of memory cells preceding the intervention circuit (via CE and N-MOS transistor connecting to CE in circuit 73).

(See column 6, line 28 to column 7 line 29).

Regarding claims 2, 4, 5, 7-9, see FIG. 7b.

Regarding claims 11, 12, 14, 15, 17, they are rejected under U.S.C. 102(b) since they recite the same limitation as in claims 1, 2, 4, 5, 7-9.

Regarding claims 3, 13, it would have been obvious to one with ordinary skill in the art to realize that transistors can be considered as resistors as well.

8. Claims 1-4, 6-9, 11-14, 16,17 are rejected under 35 U.S.C. 102(e) as being anticipated by **Yanagisawa** et al. (U.S. Patent No. 2001/0028581).

Regarding claim 1, **Yanagisawa** discloses, in FIG. 16(B), a method of reducing power consumption in a semiconductor memory device having a row of memory cells and circuitry for operating the row of memory cells, the method comprising the steps of:

providing an intervention circuit (transistor connecting between x and vdl);

instantiating the intervention circuit within the circuitry for operating the row of memory cells, proximal to the row of memory cells;

operating the intervention circuit to retain the row of memory cells in a desired state (via signal a); and

powering down the circuitry for operating the row of memory cells preceding the intervention circuit (via signal a and transistor connecting to a and vdh).

Regarding claims 2, 4, 6-9, see FIG. 16(B).

Regarding claims 11, 12, 14, 16,17, they are rejected under U.S.C. 102(e) since they recite the same limitation as in claims 1, 2, 4, 6-9.

Regarding claims 3, 13, it would have been obvious to one with ordinary skill in the art to realize that transistors can be considered as resistors as well.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VanThu Nguyen whose telephone number is (571) 272-1881. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VTN
August 27, 2004

VanThu Nguyen
Primary Examiner
Art Unit 2824